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ORIGINAL

ON THE PREVENTION OF SEPSIS AFTER LAPAROTOMIES AND UTERINE OPERATIONS.

BY DR. B. CREDE, DRESDEN, GERMANY.

The essence of antiseptic procedure lies, as is well known, in the employment of dressings for wounds that will destroy such external disease germs as may obtain access to the lesion; whilst asepsis is for the purpose of preventing their entrance altogether. The inefficiency of the antiseptics heretofore at our disposal has led to their abandonment in many procedures; and the aseptic method, which was substituted for them, will always have only a limited range of applicability. Hence the method of simple and universally applicable antisepsis by means of Silver and the Silver Salts which I first proposed three years ago deserves further and more general consideration. The method is rendered possible by the fact that the drug employed (Citrate of Silver) does no damage either to the tissues or to the general organism. Nevertheless, an absolutely reliable antisepsis in all cases is still unattainable, and septic infections cannot be entirely avoided. Hence the desirability of obtaining a remedy that will render the pathogenic organisms circulating in the blood, lymph, and tissue fluids innocuous, and will effect a general disinfection of the body after local or general septic infection has occurred.

This hiatus in the treatment of septic infections I have, I believe, at least in part filled by the introduction into therapeutics of the hitherto unknown Soluble Metallic Silver, the Argentum Colloidal. Its eminent but entirely innocuous powers as an internal antiseptic, especially when used as an inunction, or in the severest cases by the method of intravenous injection, as claimed by me in my Moscow communication, have been proved by a

mass of evidence, both published and unpublished, that is already very extensive.

If by this means the specter of septic general infection has lost much of its terrors, it by no means absolves us of the duty of employing precautions for its prevention, as in all diseases. These consist, as is well known, in the first place in the completest possible sterilization of the field of operation or the wound, and of the instruments, operators, and nurses. Antisepsis also includes the use of antiseptic remedies, and, as regards the dressings, not so much their sterility as their cleanliness. In asepsis, on the other hand, the entire system of sterilized preparations and procedures must be employed.

Technically, however, the antiseptic measures with which alone I am at the present moment concerned, cannot always be thoroughly carried out. It is true that in most cases we are able by the employment of antiseptics to prevent septic infection for several days; in some, however, we cannot effect it. Such are complicated wounds of the body cavities, such as the peritoneal space, and deep wounds that continue to bleed or secrete and thus wash away the antiseptic, as in uterine and the more extensive bone operations. Antiseptic protection for longer periods of time is difficult in these cases, and can only be partially effected by the abundant use of iodoform gauze. Small quantities of the gauze are ineffective, and permit the small amounts of fairly insoluble iodoform (soluble 1 : 24,000) to be washed away; and larger masses prevent the contraction of the wounded organs, readily grow into the tissues and cause hæmorrhage when removed; not to speak of the other disagreeabilities and dangers that belong to iodoform itself. Mere dusting of such cavities with the antiseptic is often not sufficient, for it is soon washed away. Moreover, all the available antiseptics, the Citrate of Silver included, are soluble with difficulty and develop their effects slowly. Thus it takes a long time for 0.1 gram (1 1-2 grains) of the Citrate of Silver to take the 400.0 grams (13 ounces) of fluid necessary for its solution from the tissues, and its antiseptic strength at any one time may be insufficient. More soluble antiseptics are excluded, being injurious to the tissues. In the abdominal cavity especially, our usual antiseptics are inapplicable, whilst asepsis proper has there obtained its greatest triumphs.

Operative work in this locality offers a field for the improvement of antisepsis; and here the prophylaxis of sepsis finds its most thankful task. Let us instance an abdominal operation in which the entrance of fæces or pus into the cavity is inevitable. The most careful irrigation (I employ a 1 to 4,000 or 8,000 Citrate of Silver solution), or cleansing in the most practiced hands, does not guarantee normal healing; and to avoid the greater dangers incident to closure of the abdominal cavity, the wound is left open, packed with silver, sublimate, or iodoform gauze, or drained; and a tedious convalescence, with a possible hernia, is the result. In these cases it would be specially advantageous to be able to place an antiseptic in the abdominal cavity which is readily soluble, and which would cause the rapid production of concentrated and energetic antiseptic solutions, without being irritant or poisonous. We have not in the past had such an antiseptic.

On the basis of a large experience I believe I can now recommend a procedure which will effect all that is possible to prevent sepsis, and which will mitigate or cure it when already present, for operations on the aseptic or infected abdominal cavity, for uterine operative work, and for all wound cavities.

This procedure consists in the imbedding of Soluble Metallic Silver, the Argentum Colloidale, in the most dangerously situated portions of the cavities and wounds. For this purpose I first employed millet to pea-

sized pieces of the metal as supplied to me by the Van Heyden manufactory of Radebeul, near Dresden. I soon noticed, however, that the drug in this solid form was but slowly penetrable by fluids, only a small portion of the silver being dissolved. The greater part of it remained undissolved, and, after lying for from five to eight days in the wound cavity, had lost its property of solubility in water and lymph, and had in fact become ordinary insoluble metallic silver. I used the drug later in the form of pills such as I have described as Pillul. Argent. Coll. Minores in my article on "Soluble Metallic Silver as a Curative Agent" in the Klinisch-Therapeutische Wochenschrift, Nos. 14 and 15, 1898. These contain 0.05 gram (3-4 grain) of Argentum Colloidale, the same quantity of sugar of milk, and a trace of glycerin. If properly prepared they are soluble in distilled water, the silver being still in the colloidal condition. It is finely subdivided and mixed with the milk sugar, and hence the penetration of fluids and the solution of the silver is rendered easy.

An example will best explain its use. Some time ago I made a resection of the traverse colon, removing a piece 15 cm. (6 inches) long, together with the corresponding portions of the large and small omentum, for exulcerated cancer of the intestine. The patient was in extremely bad condition. After fastening the Murphy button, and making a Lembert suture over it also because the intestinal edges could not be completely invaginated, I washed both the external and the internal field of operation with a gentle stream of a 1 to 8,000 Citrate of Silver solution. Then drying with sponges, I dusted the suture line lightly with the Citrate, and with a Lister forceps I placed two silver pills in the wound, one 5 to 6 ccm. (2 to 2 1-2 inches) above and the other the same distance below the resected intestine, and then closed the abdominal cavity in the usual way. Healing, as in all the sixteen laparotomies which up to present I have treated in this way, ensued not only with a quite remarkable absence of reaction from the peritoneum, but even without the so-called aseptic fever. This evening rise of temperature to 38.2° C (100.8° F.) formerly always occurred for two or three days in a noticeable minority of the cases. I have come to the conclusion that this fever also is usually caused by a mild degree of septic infection, though in some instances other influences such as a cold, or a gastric catarrh may cause it. I have had no trouble with this prophylactic imbedding of the silver. I have never had argyrosis, or any other symptom which would betray the presence of the silver in the wound.

When there is an infectious peritoneal process, as occurs with affections of the gall bladder and appendix, as also in cases of carcinoma of the peritoneum, the purulent secretion becomes serous in a surprisingly short time under the treatment. In such cases drainage is instituted, or a free outlet for the secretions is ensured by the use of silver gauze or that of the ordinary absorbent kind. This latter method also prevents the dislodgement of the pills. The secretion upon the deeper layers of the gauze has, of course, a pronounced grey or greyish-black color in the beginning.

The Colloidal Silver is soluble in serum in the proportion of 1 to 25; and it remain in solution in albuminous fluids in spite of the salts that they contain. The small amount of fluid required is probably always present in the abdominal cavity after operations; one or several of the pills are soon dissolved, and the solution is taken up by the lymphatic channels of the omentum. If the pure silver solution anywhere comes in contact with pathogenic cocci, Lactate of Silver will presumably be formed and exercise its antiseptic effect.

Following the analogy of processes in external infected wounds, I regard this mode of action as the one that probably occurs; although the action

of the silver in other ways, as for instance directly upon the cells or toxins, whilst conceivable, is as yet equally unproven. Larger free collections of fluid only, as intestinal contents, blood, serum, pus, cannot be sufficiently influenced by the antiseptic; for there is not enough current in them. As soon, however, as decomposition takes place in such an extravasation, and its products become absorbed, then the imbedded Colloidal Silver exerts its efficacy in the neutralization of the septic materials that have reached the circulation. The solution of the pills takes, in my opinion, several days as a rule. The fluid accumulation is thus transformed into a much less dangerous local abscess.

If the virulence of the infection should be such that in spite of this general sepsis sets in, which I have never yet seen, I should employ an energetic inunction course with my Silver Salve, and eventually open the abdominal cavity and irrigate it with a solution of the Citrate or the Lactate of Silver. In these severe cases an intravenous injection, such as Professor W. Dieckerhoff, of Berlin, has used so successfully in the septic diseases of horses, would be indicated ("The Treatment of Purpura in the Horse with Argentum Colloidale Credé," Berliner Thierärztliche Wochenschrift, 1898, No. 46).

I have never had occasion to implant more than four pills in the abdominal cavity at one time. Yet I feel sure that in case of need ten pills or more could be used without any risk.

Of the sixteen cases operated upon fifteen were discharged cured. One case died 5 1-2 weeks after the operation from acute tuberculosis of the lungs, after the laparotomy wound had completely healed. It was a man 58 years old with an almost impermeable carcinoma of the cardia, who was extremely anxious to have a gastric fistula established. He had suffered for many years from tuberculosis of the lungs. There was no reaction at all during the operation and for the first eighteen days thereafter; his weight increased, for he took three large meals daily through his gastric fistula; and he had already gotten up several times. In consequence of weather changes he contracted a fresh pneumonia, with rapid ulceration of both lungs, and died on the thirty-eighth day. The autopsy showed cheesy pneumonia of the left lower lobe, large cavities in the right lung, and carcinoma of the cardiac end of the stomach and of numerous neighboring lymphatic glands. There was no trace of peritonitis, nor even any adhesions, with the exception of the ring-shaped one of the stomach with the abdominal wall around the fistula. No trace of the two silver pills or of any silver solution could be discovered; there was no discoloration of the omentum. The abdominal cavity was normal, and the Colloidal Silver had been entirely absorbed. This fact rendered the autopsy of great interest.

Conditions similar to those in the abdominal cavity prevail in that of the uterus. It is, indeed, more accessible for disinfection, and has natural drainage; but it is very ready to absorb pathogenic germs of all kinds. All methods of uterine disinfection have only temporary value, and apply mostly to the mucous membrane. We possess no means of reliable and permanent disinfection of the organ, save the iodoform tamponade in cases in which that procedure is indicated. This is not usually the case. The most abundant application of antiseptic remedies as powder, pellets, or bougies, is soon washed away by the abundant secretion. Only insoluble, rough materials, like gauze will remain. The introduction for a few days of small amounts of antiseptic gauze is indeed practicable; but it is not effective, for the amount of antiseptic must be small and inefficient if causticity is to be avoided.

The introduction of pills of Colloidal Silver into the uterine cavity after a

procedure that is liable to be followed by decomposition of the secretions is a different matter. As the unprotected pill is hard to introduce, and is readily washed away, it must be wrapped up in gauze. In the few cases in which I have had occasion to employ the method, I put one to three pills in the middle of a piece of ordinary gauze bandage 20 to 30 cm. (8 to 12 inches) long and 8 cm. (3 1-5 inches) broad, and doubled. This was then twisted into a spiral body in the head of which were the pills. It was clutched just beneath the pills with a Lister or other long thin forceps, the head carried to the fundus uteri, and left so that the end just projected from the cervix. Then I dusted the cervix with Silver Citrate, and loosely packed the vagina with gauze bandage. This vaginal packing does not cause retention of secretion, but does to a certain extent support the gauze in the uterine cavity. I remove the vaginal tampon in from 24 to 48 hours, and apply another; the intrauterine gauze I allow to remain in situ for at least five days. The further treatment depends on the nature of the case. External cleansings only may be used or daily vaginal injections of 1 to 4,000 or 8,000 Citrate of Silver solution, or one or more pills are again placed in the uterus.

In this manner an absolutely protective, non-irritating, painless, non-poisonous, odorless and permanent disinfection of the uterus can be accomplished, and a sepsis prevented. I do not maintain that the dosage, size, and composition of my pills is the very best; other combinations may be found more suitable; but I do insist upon the antiseptic and prophylactic action of the silver when thus introduced.

For cavities in bones, complicated fractures, osteomyelitic foci, open joints, the brain, etc., the pills are to be introduced covered or uncovered in accordance with the conditions as to their removal by the secretions. I have had much experience in their use in these cases, and I have always been able to recognize an energetic action and a transformation of the secretions of the wound into a serous or mucoserous fluid.

My experience leads me to believe that the Colloidal Silver is not only a remedy of great importance when used as an inunction, when sepsis is present, but that it is also destined to play an important part as a permanent antiseptic in the treatment of wounds both in the dry form and as a 1 to 2 to 10,000 solution.

Although not included within the limits of this paper, I may be permitted to comply with the request of many colleagues to whom my brochure of 1896 on Silver and Silver Salts is not accessible, and add some information as to the mode of preparation of my Silver Catgut and Silver Silk. I have now used this material for more than three years, and am just as absolutely satisfied with it as at the beginning. The same opinion comes from other hospitals. The catgut threads become very strong from their impregnation with silver. My mode of preparation is the following: The catgut just as it comes from the factory in thick coils, but somewhat loosened, is placed in a brown glass, wide-necked bottle; if a white glass receptacle is used it must be covered with black paper. A solution of the Lactate of Silver, 1 to 100, is then poured in, until the catgut is completely covered. Here it remains for one week; then it is taken out, and placed in an ordinary, large glass vessel, covered with glass, and exposed to the brightest possible light. The Lactate of Silver in the swollen threads is reduced to metallic silver, and the fibers become brownish-black. Then the catgut is washed in boiled water until the wash waters come away clear. It is then placed in a large flat glass vessel, and covered with a double layer of muslin. After it has dried for two or three days it is straightened out with carefully washed hands, cut in 30 centimeter (12 inches) lengths, and

tied into bundles. It is preserved in a long metal box similar to that used for catheters, wrapped in four folds of muslin. Before use it is best placed for fifteen minutes to an hour in alcohol, in which it remains until it is used up. Catgut so prepared is absolutely sterile, and acts antiseptically so far as the silver that it contains reaches. The Silver Silk is prepared in exactly the same way, but it must be left in the Lactate of Silver solution for fourteen days, because its imbibition is slower. The color of the prepared silk is only light brown. It is to be preserved like the catgut, but is not cut into short lengths; it should also be placed in alcohol before it is used. Rubber drainage tubes can be silvered in the same way. My sunken silver ligatures are hardly ever sloughed out.

—Translated from Monatsschrift fur Geburtshulfe und Gynaekologie, 1898, Vol. viii, No. 6.

PERSONAL OBSERVATIONS IN THE USE OF OINTMENT OF SOLUBLE METALLIC SILVER.—UNGUENTUM CREDÉ.

BY F. S. PARSONS, M. D., BOSTON, MASS.

Having read with interest Prof. Credé's excellent article on the employment of the soluble silver salts in septic inflammation which appears in this issue I determined to make some observations of my own, and with the kind assistance of Messrs. Schering and Glatz, who furnished me the ointment I am able to report the following cases:

Case I. Male, carpenter, 25 years of age, received an infected scratch of the right middle finger applied to me for relief when the finger presented a dark red and swollen appearance, very painful with the swelling extending throughout the hand and inflammed glands forming in the axilla. He had had slight rigors and some headache, showing systemic absorption of the poison. I freely lanced the finger at the point of infection and after the escape of a small amount of pus I rubbed into the wound about a drachm of Credé's ointment, instructing him to come the following day. He accordingly did so stating that he had felt so much better that he ventured to work some the previous afternoon. On taking off the bandages I found the swelling had nearly disappeared and the wound looked healthy and granulating. There was no swelling or soreness in the axilla or hand, the entire trouble being confined to the affected finger. His further recovery was uninterrupted.

Case II was similar to the above but not so severe. Male, 30 years old, electrician, had what appeared to be a boil on the dorsal aspect of the ring-finger of left hand, swelling and inflaming the finger and hand to a considerable extent, but there was no systemic infection. I freely lanced the boil, obtaining considerable pus. I then dressed his wound in Credé's ointment and found it practically healed on the second day.

Case III. Female; age 32; chronic pelvic abscess freely discharging. The treatment of this case has been somewhat disappointing from the fact that although the sinus of the abscess opens into the vagina and the applications of Credé's ointment has been made on cotton tampons, together with thigh inunctions the case has never once been really septic owing, probably to encystment of the abscess from the peritoneal cavity and a free exit for the pus. I think, however, that quite a little impression was made on the induration surrounding the abscess cavity with the ointment, but like all these cases it is one more fit for operative procedure which the patient is as yet unwilling to have performed.

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MEETING OF DECEMBER 16, 1898, AND JANUARY 20, 1899.

SHORTENED PECTORAL MUSCLE.

Dr. R. Whitman presented a patient, a girl 11 years of age who could not raise her right arm more than 30 degrees above the horizontal. The cause appeared to be obstetrical paralysis. Round shoulders and curvature of the spine were present. He had advised division of the unyielding contraction of the lower border of the pectoralis major muscle, which presented a thick fibrous cord beneath the skin.

Dr. A. B. Judson said that the contraction might have resulted from a paralyzed deltoid which had failed to give normal extension to the pentoral.

Dr. Whitman said that there was a very fair development of the shoulder muscles and that the curvature of the spine could not be relieved until the contraction that prevented the child from lifting her arm over the head was removed.

TUBERCULOUS KNEE AND ATHETOSIS.

Dr. Whitman presented a girl of 10 years of age who had been under observation for 9 years. When 1 year old and under treatment for disease of the right knee she had a convulsive attack which was followed by right hemiplegia. The return of voluntary power was accompanied by constant convulsive movements of the face, arm and leg which had continued to the present time and had made treatment of the knee a matter of great difficulty. In spite of splints, traction and plaster of Paris bandages the convulsive movements of the leg had caused severe pain and prevented repair, so that the local leg disease was still uncured. But for the youth of the patient, amputation would have been done. The case illustrated the advantage and necessity of rest in the conservative treatment of joint diseases.

CASES OF DOUBTFUL DIAGNOSIS.

Dr. W. R. Townsend presented a boy 11 years of age who fell from a car three months ago and had complained of pain in the left hip ever since. Six weeks ago when he was first seen there was symmetry in all the measurements of the lower extremities but the affected hip showed considerable resistance to motion in any direction, which could sometimes be partly overcome by persuasion and considerable force. Manipulation was painless. He stood and walked with the left foot, leg and thigh everted or rotated outward 90 degrees and this persisted. By the use of considerable force the limb could be rolled in but when released it flew back to its old position. Every muscle reacted perfectly to galvanism and faradism. Tincture of iodine had been used locally and his locomotion had improved a little. A probable diagnosis of hysteria had been made by exclusion and because he could with effort stand and walk voluntarily in a normal manner and because the bad position could be overcome by a steady pressure and without causing pain.

Dr. Whitman said that a faulty position of a limb in an impressionable patient might be considered as a voluntary or unconsciously selected

adaptation to some condition following strain or other injury of a joint.

Dr. Townsend said that the statement had been made that injury of the obturator nerve had in some instances caused a similar eversion but he had not found any recorded cases.

Dr. G. R. Elliott presented a man 32 years of age. The family history was negative regarding nervous and bony diseases. Five years ago inability to move the left thigh appeared. When motion returned to the left thigh the right was similarily affected. Other symptoms which still persisted were burning sensations in the feet, especially in the heels, great difficulty in standing erect, and walking and rigidity of the spine preventing him from bending backwards. Torus palatinus was noted and there were other degenaterative stigmata. The legs were bowed but otherwise there were no signs of early rhachitic changes. The hamstrings were contracted. There was double hallux valgus and pes equinus. The upper extremities were normal. There were no sensory disturbances beyond the paraesthesias mentioned. Neurologists had failed to locate any organic nerve lesions. Dr. Elliott was in doubt in regard to the diagnosis. He did not agree with an opinion expressed by some members of the Section that it was probably a case of rheumatoid arthritis, a disease which could not present so much disability with practically no involvement of the small joints, almost painless from the beginning and with no deposits about the joints. The pain that was present and the disability were due to the various contractions and consequent disuse of the parts implicated.

CICATRICIAL CONTRACTION OF THE HAND.

Dr. S. Lloyd presented a little boy with cicatricial deformity of the right hand, the result of burns received a year ago. About 6 weeks ago the little finger, being very much twisted and distorted, was amputated and superficial tissue was removed from the remaining digits. To replace the cicatricial tissue with normal skin a flap including a little of the fatty tissue was partially dissected from the abdomen, being attached at the top and bottom. Under this the boy's hand was slipped and a plaster of Paris bandage was applied. This being removed the attachment of the fingers to the abdomen was very well shown. At a later stage the flap would be entirely detached from the abdomen. There had been no suppuration.

MEETING OF JANUARY 20, 1899.

SECONDARY PULMONARY OSTEO-ARTHROPATHY IN A CHILD.

Dr. R. Whitman presented a girl 8 years of age, rather undersized but in fair physical condition. There was moderate kyphosis and rigidity of the spine, the result of Pott's disease of the 10th dorsal vertebra, accompanied by an abscess in the left iliac fossa, for which she had been treated by the application of a plaster of Paris jacket in 1893 when she was 2 years old. The abscess disappeared and the patient was recovering favorably till 1896 when persistent cough and expectoration followed an attack of whooping cough. In 1897 enlargement of the fingers was noted, the gait was feeble and shuffling and there was pain in the knees and ankles with exaggerated patellar reflex and ankle clonus and marked effusion into the knee and ankle joints. The terminal phalanges and the nails were enlarged and there was cough with abundant expectoration and râles at the apex of the left lung. In 1898 the pain was relieved by the anti-rheumatic administration of salicylate of soda and although there was a marked general improvement the swelling of the knees and ankles persisted and the increased clubbing of the nails had attracted much attention and was thought to be an instance of the so-called Hippocratic fingers, due to obstruction of the circulation caused by disease of the lungs. Expectoration was moderate in amount and bacilli were not

found. In October, however, an examination showed thickening and enlargement of the bones of the lower arms and sensitiveness to pressure and swelling of the wrist joints. This made the diagnosis clear and at once connected the clubbing of the fingers, the arthritis and the enlarged bones as symptomatic of the affection known as secondary pulmonary hypertrophic osteo-arthropathy. The child was found to have no psoas contraction or other trace of abscess and there was apparent recovery from the disease of the spine. There was slight dullness at the apex of the left lung and increased respiratory sounds at the base of the right. The most marked peculiarity was the great size of the hands as compared with the size of the child and of the lower arms and legs as compared with the upper segments of the extremities, giving the impression of atrophy of the thighs and upper arms. The bones of the legs and fore-arms were sensitive to pressure. The knees, ankles and wrists were enlarged by an effusion into the joints and by thickening of the surrounding parts without redness, heat or muscular spasm. Motion was very slightly limited. The digits were thickened and their terminal phalanges remarkably enlarged with nails, rose red in color, but not especially thickened or curved. The circumference of the ends of the fingers and the breadth of the nails were about twice as great as normal. This condition was somewhat less marked in the feet than in the hands. The affection of the bones in this disease appeared to be a form of malacia in which the organic material is somewhat increased and the mineral substance correspondingly diminished so that the structure of the bone is weakened. The characteristic change in a deposit of new bone beneath the periosteum of the shafts of the phalanges, the metacarpal and metatarsal bones and the lower part of the bones of the lower arm and leg with local sensitiveness, sympathetic arthritis and clubbing of the ends of the digits and hypertrophy of the nails. The affection had been first described in 1888 by Bamburger and independently by Marie who differentiated it from acromegalia with which it had been confounded. In practically all of the cases reported, upward of 80 in number, it was secondary to chronic disease of other parts, in 75 per cent. to tubercular or suppurative disease of the lung or its coverings. The cause of the periosteal and other changes was supposed to be the absorption of irritating substances from the lung, combined with impaired circulation. Thus the first evidences appeared in the ends of the fingers. It was a rare disease and this was believed to be the first typical case reported in a child.

Dr. H. E. Pearse, referring to the great increase in the size of the bones, called attention to the fact that the radiographs showed that the enlargement was longitudinal as well as transverse.

Dr. A. M. Phelps said that he had been impressed with the remarkable bony enlargement. A post-mortem examination of the brain and cord would be of great interest. Acromegaly was due to a tumor or growth in one of the ventricles of the brain and he questioned whether or not in the case presented there was a central lesion due to poisoning from the diseased area. The lungs had not been sufficiently involved to cause obstructed pulmonary circulation. In tabetic joints there was destruction of bone from a central lesion and cases of rheumatoid arthritis might perhaps have a similar origin and not have been rheumatism at all. He doubted whether such a thing as a simple rheumatic joint existed. They were always multiple.

Dr. R. H. Sayre said that the pathological views presented were not entirely convincing. It was not clear why proliferation of the periosteum should visit the phalanges rather than other parts of the skeleton. In a patient affected with a tubercular knee

joint the radiograph had shown a very marked proliferation of the periosteum of the lower end of the femur and there were marked clubbed fingers. The patient had the appearance of a consumptive in whom the destruction of the lung was far advanced but her lungs showed no change. In another patient there was the same condition of the fingers which were more tender some times than at others. Movement greatly aggravated the inflammation and nothing gave relief but absolute rest.

Dr. H. S. Stokes said that the etiology was far from being established, as might well be in a disease that had been recognized for only 8 or 10 years. It had not yet been positively determined even that the condition was dependent on disease of the lungs. If it were, why did it not occur more frequently? In the absence of the characteristic bacilli it was not certain that the child presented had tuberculosis. In view of her history it would not have been strange if her general condition had been worse. It was almost impossible to make a diagnosis of lung affections in children with deformed chests. He had seen a specimen of kyphosis from a case in which the diagnosis of tuberculosis of both lungs had been made and yet at the autopsy the lungs had been found to be normal. Similar cases were not uncommon.

Dr. R. G. Elliott said that if speculation were in order he would agree with Dr. Phelps that the cause of this rare condition was to be sought for through the central nervous system. There was reason to believe that the cause of various distal bony changes and peculiar vascular phenomena presented by the distal extremities, including great sensitiveness, together with certain well-marked types of so-called osteo-arthropathy were traceable to central lesions. In the patient presented there were clinical and X-ray evidences of a disturbance of the normal equilibrium between the bone producing and organic producing cells leading to the enlargement. The signs were bi-lateral and symmetrical evidences of central irritation. To say that such a condition was associated with a chronic disease meant very little; to say that it was circulatory was untenable. He believed that the explanation would be found in this—that the trophic and vaso-motor cells had been thrown off the track by some poison, be it tubercular or other, circulating through the central nervous system, selective in its nature and degenerative in its final expression.

Dr. Stokes said that in the five or six autopsies which had been made no nerve lesions had been found in spite of careful and thorough examination.

Dr. Elliott said that that was true of other diseases which were considered to be due to central nervous lesion.

Dr. Whitman said that many cases of osteo-arthropathy were probably not true examples of the disease in question. In many the only change observed was clubbing of the fingers which was sometimes seen in cases of simple obstruction of the circulation, described by Hippocrates as a symptom of advanced phthisis and not very uncommon in cases of empyema of long standing. One fact had been established, viz.: that hypertrophic osteo-arthropathy was practically always secondary to some chronic disease, in the case presented, for example, to Pott's disease and chronic bronchitis. Speculation as to its cause would seem to be less important than further and more careful descriptions and classification of cases.

CYST OF FEMUR, DOUBLE COXA VARA.

Dr. Whitman presented a boy, 11 years of age, with evidences of femur rhachitis and the usual signs of double coxa vara. For several years he had complained of discomfort and pain in the left hip and thigh, the pain at times being severe, especially after exertion. When about 5 years of age he was treated by a physician for 18 months for supposed hip disease and a year later by the application of a

plaster jacket for spinal deformity. On September 8, 1898, an operation was begun for the correction of the deformity of the femora by removing wedges of bone from the trochanters. On removing the periosteum from the upper end of the left femur a peculiar dark color and a somewhat reticulated appearance of the bone were noticed and at the first touch the chisel broke through the brittle cortex and entered a cavity from which spurted a quantity of serum of the color of prune juice. The cavity was of the size of a hen's egg, its base being shut off from the medullary cavity of the diaphysis by a cone-shaped projection covered apparently with cartilage. Its upper extremity reached about half way to the apex of the trochanter. Its walls were lined by a smooth fibrous covering which bled freely on manipulation. As it was feared that the inner part of the femur was weakened by the cyst, and as it was evident that union in case of fracture would be doubtful, to restrain hemorrhage the cavity was simply packed with gauze, which was removed at the end of four weeks and the boy began to walk about. The sinus closed one month later. It was evident that spontaneous fracture, as in other cases of coxa vara, could not have been long delayed. If the symptoms should recur, a second operation for the removal of the walls of the cyst would be indicated. Cysts for the femur were usually found at the extremity of the diaphysis, most often at its upper extremity. A diagnosis before operation had not been recorded. They were said to be the result of softening or transformation of an originally more solid growth of a cartilaginous or fibro-cartilaginous nature, probably a displaced fragment of epiphyseal cartilage.

Dr. Sayre had examined the boy 2 or 3 months ago. As he had not offered to operate, the patient passed out of his care. At that time he had taken a radiograph of the hips and had observed a spot on the femur which might have been the cyst.

VALUE OF RADIOGRAPHS.

Dr. T. H. Myers said that he had tried but usually in vain, to detect abscesses, tubercular foci and other lesions in the bones by means of skiagraphy. In a case of abscess of the head of the tibia an area of diminished density at the site of the abscess had been clearly revealed, with increased density about it, similar to the contrast seen between the centre and the periphery of a long bone in any skiagraph.

Dr. Phelps said that a radiograph would usually show a shadow where there was a lesion but it could not tell what it was. He had been deceived by pictures taken by good machines, and had cut down upon lesions which did not exist. It was not possible to diagnosticate lesions of the soft parts by means of radiography, but if an abscess was known to exist it would aid in locating it.

Dr. H. L. Taylor said that radiographs could not until further improved be expected to more than indicate certain physical changes in bone. If the structure had become so attenuated by disease that the X-ray could pass the focus of disease would be indicated, not otherwise. Intelligence and experience should be brought to the interpretation of these pictures which are subject to all the distortions of shadows and the errors of photographic processes. A radiogram which was said to reveal the epiphyseal line had really shown a crack in the photographic film. He had a picture of tuberculosis of the carpus in which the diseased foci were shown with the greatest clearness. A cyst of the bone would be revealed if the walls were sufficiently thin to allow the rays to pass.

Dr. Whitman thought that all X-ray pictures should be interpreted. They were of great service to one who had clear ideas of what he was looking for.

POTT'S DISEASE—DEATH CAUSED BY AN ABSCESS IN THE THORAX.

Dr. Whitman also related the history of a boy of 4 years of age who,

with an angular projection at the 4th dorsal vertebra, was subject to occasional prolonged asthmatic attacks of such severity that fatal asphyxiation seemed to be imminent. The character of the dyspnœa seemed to warrant a diagnosis of abscess pressing upon the trachea. A plaster jacket and jury-mast were applied with good effect and a month later the jacket was removed for the purpose of examining the chest more carefully, but the symptoms of dyspnœa, caused apparently, in part by the removal of the support and in part by the recumbent position, became so urgent that it was immediately re-applied without further examination. The boy died suddenly that evening. The internal organs showed no signs of disease. On removing the lungs and heart a tense fluctuating tumor was apparent in the medium line, the size of a large hen's egg, between the oesophagus and the anterior longitudinal ligament, on a level with the upper border of the 3d dorsal vertebra, its apex at the 6th dorsal. The abscess contained about 2 ounces of purulent fluid. It appeared to have escaped from behind the longitudinal ligament into the retro-œsophageal space at about the time of the greater obstruction of breathing, or about 6 weeks before death. The greatest projection of the tumor was opposite the 3d vertebra where it was forced forward, by the spine above the collapsed vertebral body, against the trachea near its bifurcation. An abscess obstructing the respiratory passages in the upper cervical region could be reached and evacuated, but within the chest walls its diagnosis and treatment were not easy. The significance of what might be called asthmatic breathing as distinguished from the embarrassed respiration symptomatic of Pott's disease in this region should be borne in mind. If the abscess were large and could be percussed posteriorly costo-transversectimy would be indicated. But in this case there was no dullness on percussion and the small abscess lay at a distance of 3 inches from the exterior of the body, so that it was probable that the large opening of so-called posterior thoractomy would have been necessary, a justifiable operation of the difficulties of diagnosis could have been overcome.

Dr. Phelps recalled two cases in which the abscess had ruptured into the lung but in neither did suffocation, which had caused death in Dr. Whitman's patient, occur. On the other hand he had seen cases of cervical disease in which the abscesses had ruptured into the pharynx and caused suffocation. When the abscess was high enough it should be opened the very moment it was detected by an external incision for it might rupture during sleep at any time and, if the patient did not suffocate, he would die later of tuberculosis due to infection of the lung.

Dr. A. B. Judson said that the walls of the trachea were not easily compressible except by force, as by the grasp of a strangler or the hangman's rope. When a foreign body in the gullet produced suffocation it was from spasm of the glottis and not from compression of the trachea. At the level of the 3d dorsal vertebra, however, the trachea occupied, together with the œsophagus and the deep cardiac plexus of the sympathetic nerve, a narrow strait bounded behind by the vertebral bodies and in front by the upper piece of the sternum and here, if at any point, its lumen might be diminished by the pressure of a fluctuating tumor. Above this level and below, where the anterior and posterior walls of the thorax diverged, no such pressure was likely to occur. It was not uncommon for abscesses, as in Dr. Whitman's patient, to occupy this critical position. The conservative tendency of cold abscesses to move where there was least resistance often perhaps prevented intereference with the vital function of the trachea. He suggested that the fatal result might have been due to spasm of the glottis following the passage of a part of the contents of the abscess into the

trachea or to some interference with cardiac plexus.

Dr. Taylor was reminded of a case of Pott's disease reported by Dr. W. R. Townsend in which the abscess was in this region. An unusual form of dyspnœa was a feature of the clinical history and the child died suddenly a few days after admission to the hospital. A rather small abscess which had not ruptured was found in front of the spinal column at the root of the neck. It was supposed that suffocation had been due to some traction upon the nerves rather than to pressure.

Dr. Myers recalled, and continued, the history of a boy, 7 years of age, who was before the Section on March 18, 1898. The abscess had burrowed forward into the neck from the 5th dorsal vertebra and discharged behind the right sterno-mastoid. The evening temperature rose 2 degrees when the boy was allowed to be up and was normal when he was kept recumbent, in which position the drainage was free. He had therefore been kept in bed for two months after which his general health was restored and the sinus remained closed for several months. He had, however, returned with a profuse recurrence of the discharge, an enlargement of the post-cervical glands on the right side and an abscess over the manubrium, but with no rise of temperature. An irrigating fluid passed from the old sinus out of the pharynx by a passage which was open for a month but which had been closed for 4 weeks. It was a question whether one of the abscesses perforated or whether one of the cervical glands ruptured and discharged.

Dr. Judson recalled a case which, during the progress of purulent hip disease, an abscess over the manubrium turned out to be from caries at the junction of the upper and middle piece of the sternum. There was spontaneous rupture externally, consolidation, a scar attached to the bone and recovery with angular deformity, anterior instead of posterior as in Pott's disease. The angle formed by the manubrium and the gladiolus measured more than 25 degrees. The sinus had closed seventeen years ago. Recovery from the hip disease had been very favorable and the caries of the sternum had left no inconvenience.

Dr. Homer Gibney said that it was reasonable to believe that abscesses occurred as often with disease of the upper dorsal region as of the cervical, but they were not so easily detected in the former and were too often overlooked.

Dr. Whitman said that in the case reported by him the abscess had not ruptured, it was strictly confined to the retro-œsophageal space in front of the spine. There had been no change in voice or difficulty in swallowing. An abscess in this region was a direct menace to life, the dangerous symptom being attacks of inspiratory dyspnœa. It is probable that an operation would have saved life in this case.

ALUMINIUM CORSET.

Dr. Phelps exhibited an aluminium corset for the treatment of spinal disease. He had experimented largely with various materials, such as sole leather, celluloid, wood, etc., and considered this material, which was light, clean, able to keep its shape and durable, as the best that he had found for the purpose.

Editorial

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ALBUMEN IN DIABETES.

The association of albumen with sugar in diabetes mellitus adds a factor of great danger in the majority of cases. If it occurs after the patient has passed the meridian of life it undoubtedly foreshadows the presence of grave, organic changes taking place in the kidneys, which very promptly lead to secondary manifestations in the heart. At an earlier period, and when the glycosuria has only existed for a short time, the presence of albumen may be simply a coincidence, or may have existed even prior to the establishment of the diabetes. In the first class of cases, those in which arterio-sclerotic changes have taken place, and the glycosuria has been in evidence for some time, the albumen is undoubtedly produced by the irritation of the kidneys caused by the excessive flow of urine containing large quantities of sugar.

The presence of albumen here does not of itself disclose an acute disease process in the kidneys, for where there is marked arterio-sclerosis and increase of connective tissues as in interstitial nephritis we are well aware that the amount of albumen is characteristically limited. It is as much then to the mechanical interference with the delicate structural organization of the kidneys—an irritation produced as we have intimated by the passage of large quantities of diabetic urine—that we look for the causation of albuminuria, as to disease changes in the organs themselves.

Glycosuria unquestionably does produce, in the course of time, chronic nephritis. The exact form has not as yet been determined upon. Some authors, Inglessis and Seegen, claim that parenchymatous nephritis is found, while others, V. Noorden, for example, declare it to be almost always granular kidney. The consensus of opinion appears to favor the former theory. The development of chronic changes does not take place until the glycosuria has existed for a considerable length of time, because (1) there must be an irritation of the epithelium

of the tubuli uriniferi, (2) a hyperæmia of the kidneys, and (3) functional albuminuria. If the irritation continues it leads to the development of an inflammatory process in the parenchyma of the kidneys.

As for the treatment very little can be written. The reduction of the sugar by proper restrictions of diet, and the judicious administration of those remedies which have been found most efficacious in the treatment of the disease, will, especially in the earlier stages, lessen the irritation, but once chronic changes have taken place, our only aim should be to reduce the opportunities for acute attacks.

And yet, it must be borne in mind, that frequently in the advanced stages of diabetes what we hail as a most favorable sign, namely, the diminition of the glycosuria, is a most unfavorable omen, for it indicates that the tissue changes have advanced to a greater extent than where there is still some cretion of sugar.

J. J. M.

REST IN ACUTE ENDOCARDITIS.

Rest is one of the most important factors in the treatment of cardiac lesions. This fact should be especially borne in mind in the more acute manifestations of endocarditis subsequent to the development of rheumatism. The delicate tissue lining the valves is particularly susceptible to the effects of the toxæmia generated by the presence of the rheumatic invasion. And whether we believe that the original attack of endocarditis is due to the presence of as yet unspecified bacilli, or to the irritating consequences of the rheumatic toxins, the clinical phenomena accompanying its encroachment are necessarily the same. When a systolic murmur is recognized over the apical area, our therapeutic measures are of little consequence. We may control the pain and fever, and thus add greatly to the comfort of the patient by the exhibition of large doses of salicylates, but they have little effect over the endocarditis.

To stay its further development there is no remedy of such importance as rest. It not only relieves the strain brought to bear upon the crippled valve, but it undoubtedly does much to prevent the muscular stricture of the heart itself from becoming affected. There is, however, one therapeutic measure which should always be tried in these cases and that is the use of small blisters. It is difficult to explain the rationale of their use, unless it is by a reflection through spinal or sympathetic ganglia via intercostal and visceral nerves. The influence is not direct, and the route through which they exercise their activity is roundabout, but the fact remains that blisters oftentimes do aid in returning the heart to its normal condition.

We have no hesitation in fixing a joint immovably for five to eight weeks when fracture takes place through it, and in this particular application of rest common sense teaches us that otherwise the absorption of inflammatory products would not follow the permanent impairment of the joint might be the consequence. How much more necessary is it then to give the heart absolute and thorough rest for the same period.

We are not sufficiently thoughtful in pointing out the necessity of such action and frequently it is difficult to restrain the patient for that length of time, but the sooner we realize that it is absolutely necessary for a child, for example, to be kept in the recumbent

position for at least two months, with active endocarditis present, the less often will we be called upon to meet the secondary consequences of our lack of attention.

It should be carefully remembered that in endocarditis in the growing child we have not only the affected valve itself to deal with, but we have, oftentimes unrecognized, plastic pericarditis, and frequently following these antecedent consequences, a true myocarditis. There is apt to be acute dilatation, often demonstrated by the rapid respiration, and the larger area of cardiac impulse.

Rest then is one of the leading measures to be adopted, and when the physician is dealing with rheumatic endocarditis in an active condition he should be as insistent in demanding it as the surgeon is in treating a fractured bone. J. J. M.

THE NEW EDITOR OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

About thirty years ago a ship left the shores of old England bearing as a part of its precious cargo an orphan boy in search of a home. That ship dropped anchor in New York Bay, but the boy continued his journey westward until he had passed half way across the continent, reaching the then new Nebraska which he adopted as his home. Near the village of Florence he obtained work as a farm hand. After two seasons of husking corn and breaking bronchos a desire for an education drew him to the State University at Lincoln. Here he supported himself at anything he could find to do that was honorable. He spent most of his spare time either upon the State Agricultural Farm or in the newspaper office of the Nebraska Farmer. In the latter position he soon proved his worth and became assistant editor. In this field of labor he showed marked ability. On leaving the University he studied medicine and after graduating, began the practice of his profession at a railroad camp far up in the Rocky Mountains. After a few months there he concluded to broaden his professional ideas and spent the following two years in the hospitals of Europe. On his return to Lincoln he became actively identified with the medical profession of the State and served the State Medical Society as its Secretary. Some three years ago he established the Western Medical Review. The high character of his work on the Review attracted the attention of the trustees of the Journal of the American Medical Association when they sought a capable successor to the late lamented Dr. John B. Hamilton as editor. The success of Dr. George H. Simmons may be attributed to his energy, perseverance, sterling honesty, and tolerance of the views of others. The Journal of the A. M. A. must be congratulated on its success in securing such an efficient helmsman.

—Western Med. Review.

Such is the record of the man at the helm of the leading medical journal of the United States. What an illustration of the possibilities of a young man of character, enterprise and diligence. From husking corn to the moulding and welding of the medical thought of a continent. Another evidence of the deep-rooted grip of democracy in our country, and the proof that the real aristocracy of our nation resides in brains and enterprise, and not in hereditary titles or large fortunes.

We were well-acquainted with Dr. Simmons' capacity as an editor before he was promoted to the exalted position he now holds, and his appointment was no fortuitous circumstance, but the finale of a crucial examination in which he came out far in the front.

His opportunities are now unlimited to make the Journal of the American Medical Association the leading exponent of medical science in the English language. Let us hope he may enjoy the encouragement and support necessary from the trustees and from the whole profession of the United States. His duties are, indeed, arduous and trying, but with all his energies centered in them there can be no doubt of the Journal's future.

The late indefatigable, lamented Hamilton committed the fatal mistake of undertaking too much at the cost of his life, and to the detriment of his editorial work. The attempt to edit a leading weekly, teach surgery and superintend a State lunatic asylum at one and the same time could only end in a break-down or failure.

Now let Dr. Simmons bend his energies toward uniting and consolidating the medical profession.

The medical profession of the United States is to-day saturated with the rankest sort of abuses, and the time has come when there is a loud cry for another Tom Wakely to strike his Titanic blows on the heads of the wrong-doers. We are sadly in need of a leader to agitate and press for reforms, to crush hospital and dispensary abuses, to give us an uniform registration law, to stamp out the newspaper advertisers and many other things.

Let us hope that Dr. Simmons has the Saxon grit to nerve him on in the Herculean task he has undertaken and that his efforts may be rewarded by the generous support of every loyal member of the profession.

T. H. M.

THE GENERAL PRACTITIONER AND MEDICAL PROGRESS.

To the cursory observer it may seem that the general practitioner has little to do with medical progress. It is probably true that the majority of the discoveries that have so advanced medical science in the last couple of decades were made by special workers in the various fields of medicine; but the bringing into a general use of these benefits to mankind has been pre-eminently the work of "the doctor." The general use of antitoxin for diphtheria, the use of intestinal antiseptics for typhoid fever, the adoption of successful succadenums for morphine are a few of the therapeutic reforms worked by his aid. He has advanced practical medicine not alone by his positive stand in regard to the use of remedies like the above, but also by his negative position in regard to remedies vaunted by enthusiasts in high position. And such remedies, or rather their advocates, have generally come to grief. Witness tuberculin, and sulphide of hydrogen as cures for consumption! A most important position then in regard to progress in medicine does the general practitioner hold. A position that specialism, in its narrow sense, cannot harm. In fact the signs point to the gathering together of the specialities for the production of the greatest of all specialties —the specialty of general practice. Twentieth century medicine will witness the doctor armed and fitted as he never was before to cope with "the ills that flesh is heir to" from infancy to old age.

BOOK REVIEW

THE INTERNATIONAL MEDICAL ANNUAL, 1899—SEVENTEENTH YEAR OF A WORK OF REFERENCE FOR MEDICAL PRACTITIONERS, COPIOUSLY ILLUSTRATED WITH ELEGANT PLATES, IN COLORS AND BLACK AND WHITE.

E. B. Treat & Co., publishers, 241-243 West 23d St., New York.

Those fortunate practitioners who annually subscribe for "Treat's International" look forward with pleasure to its appearance on account of the new up-to-date matter it always contains. In fact it is a book one can hardly practice medicine successfully without and be abreast of his fellow-laborers. The "Annual" this year seems to have surpassed all previous issues. This work is something more than a mere retrospect of the past year. It includes a series of articles intended to bring the readers' knowledge up to date on subjects of modern investigation, and the present volume contains new matter of practical interest concerning almost every known disorder.

Among the special articles will be found the following: "Practical X-Ray Work," by R. Norris Wolfenden, M. D., B. A.; "Advances in Skull Surgery," by Seneca D. Powell, M. D.; "Surgical Treatment of Paralysis," by Drs. Robert Jones, F. R. C. S., and A. H. Tubby, M. S., M. B. These articles are freely illustrated, chiefly by reproductions from photographs. An excellent article on "Climatic Treatment of Consumption," by F. de Havilland Hall, M. D., F. R. C. P., as well as one on "Legal Decisions Affecting Medical Men," by William A. Purrington, A. B., LL. M., are interesting and pertinent. An article on "The Chief Pathogenic Bacteria in the Human Subject," with descriptions of their morphology and methods of microscopical examination, by S. G. Shattock, F. R. C. S., the Pathological Curator of the Museum of the Royal College of Surgeons, London, illustrated by a series of finely colored plates is added.

The "Annual" is now a standard work of reference in all parts of the world, and no medical work of such a widely international character has been previously issued by the medical press in any country, which offers so much at so small a price.

ANUSOL SUPPOSITORIES.

In reply to numerous inquiries concerning Dr. Timmermann's article on hemorrhoids, on page 80 of our March issue, we will state that information concerning these suppositories may be had of Schering and Glatz, agents, 58 Maiden Lane, New York.—(Ed.)

CLINICAL SURGERY AND SURGICAL PATHOLOGY.

In Charge of T. H. MANLEY, M. D., New York.

OPERATION FOR NEURALGIA OF THE TESTICLE.

Douoth and Hultl in a Vienna exchange contributes an excellent summary on the above important subject, They tell us that Sir Astley Cooper was the first author to treat of this subject at length. Later Valleix followed with an essay on ileo-scrotal neuralgia.

Cooper designated the affection lumbo-abdominal neuralgia, because it was sometimes met with in females but never with the same intensity as in the male. Valleix regarded gonorrhœa as an occasional cause of this affection, while Eulenburg and Bernhardt believed that the seat of primary lesion was in the spinal cord as they had found that in some cases no relief followed castration, ligation of the spermatic artery or the veins of the cord as relapse frequently occurred.

Fournier has seen this neralgia succeed gonorrhœal neuritis when it seized on the crural or obturator nerves, though, he admitted, it was not often seen.

Konig, Bardeleben and other surgeons are opposed to castration for this condition.

Gritti has secured relief by the free division of the tunica albugínea, and Kocher had satisfactory results by dealing with the nerves of the spermatic cord.

The case recorded by the authors is the following: Patient 23 years old with a good family history. When patient was ten years old was kicked by a horse on the forehead. Since he was eight has had hemi-crani on the left side. In 1894 had gonorrhœa followed by orchitis which lasted five weeks. This was followed by continuous pain which resisted all treatment. When he entered the hospital he was anæmic, emaciated and decidedly neurotic. He was prepared to submit to any operation that held out any hope of relief. After a careful consideration of the case it was decided to resect the lumbo-inguinal and the spermatic nerves. What this end in view a free incision was made extending from the eleventh rib to the outer third of Poupart's ligament. The peritoneum was pressed aside and the common iliac artery was reached. Then the lumbo-crural and spermatic nerves were isolated and seven were resected of each. Examination of these in the laboratory of Prof. Pertik revealed nothing abnormal. Duration of operation 30 minutes. Patient made a good recovery. Extensive areas of anæsthesia in the parts supplied by the resected nerves occurred but there has been no return of the former agonizing pain, and what is a source of gratification to the patient, his former sexual vigor has been restored and after coitus there is felt no more pain in the testes.

—Wiener Klinische Wochenschret.

Note.—The above is a very formidable operation for a condition generally amenable to simpler means; nor have we proof of permanency in effects, as the time elapsing after operation is yet rather too short to decide that. T. H. M.

PROGRESSIVE OSTEOPLASTY IN SERIOUS FRACTURE.

Scheuer records a remarkable instance of what may be accomplished by modern osteoplasty. The patient was a five-year-old child who had sustained a bad compound fracture of the humerus. So much bone was lost that no union followed and a flail joint resulted. In order to remedy the defect Scheuer looked about for homogeneous osseous tissue to fill the

breach. He finally decided to draw on the skeleton of the thorax and resected a section of the fifth rib 8 cm long. This he imbedded in a furrow made for it between the separated fragments of the arm. No reaction followed the operation. The two wounds healed promptly; union resulting was excellent and nine months later there was full use of the arm.

—Wiener Klinische Rundschau, 1899.

Note by translator.—This, indeed, is up-to-date surgery in traumatism and points to what the surgeon is exexpected to do for complicated fractures in our time.

T. H. M.

INTESTINAL POLYPI.

Von Ritter has recently recorded a very interesting and uncommon pathologic condition found in a patient. It was a case of intestinal polypi, occupying the lower part of the jejunum and the first part of the ileum.

The patient was a young man, 23 years old, who always enjoyed good health previous to the period when he was seized with colicy pains in the epigastrium, with vomiting and constipation.

On examination a tumor-like mass was detected on the left side below the navel. This was movable though sensitive on manipulation.

The symptoms pointed rather to invagination; and tentative remedies have failed to give relief, it was decided to laparotomise and if possible, remove the obstructing agent.

An incision 10 cm. long was made to the left of the umbilicus and the peritoneum opened. Now an invagination with torsion of the intestine was reached.

A kinked mass of the ileum was found forming a large tumor which extended into the jejunum and was turned on itself up under the stomach and colon. This was brought out through the incision when the intestine was opened in five places. The three polypi were excised from the walls of the ileum and the jejunum.

The intestinal incisions were carefully sutured, and intestine returned, the opening closed.

Operation on March 18, 1898.

Recovery was uneventful. On April 1 patient up, and left the hospital on 27th. Returned for inspection 10th of February, 1899, when he was found to be enjoying good health and having no further trouble with his digestion, and was pursuing his usual occupation.

The author cites two cases of above character recorded by Esmarsch of a congenital character in two sisters. Langenbeck has witnessed these masses in the small intestine of four sisters. Dysentery typhoid and tuberculosis have been said to play a role in this etiology.

In the literature but one case of polypi was found in a patient so young. The author calls attention to the difficulties in diagnosis here when obstructive symptoms appear.

Ritter cites Kanthack's case, in which the real cause of death was only obvious on autopsy. The patient was a girl 13 years old who died from septicaemia consecutive to obstruction. The small intestine was found impacted with large clusters of thick-walled polypi. In Petroios case, a maiden 20 years old, for two weeks, suffered from diarrhœa and vomiting. On laparotomy the small-intestine was found telescoped into the caecum. Patient sank day following.

Hauser had a case in which polypi was lodged in lower segment of the sigmoid flexure. By free dilatation of the rectum this could be recognized and drawn out through the anus when it was excised. Patient succumbed on second day from pneumonia and peritonitis.

On post-mortem, the upper third of the rectum, the whole length of the sigmoid, the spine end of the colon, the jejunum and even the gastric walls were found bestudded with polypi, varying from the size of a pin's-head

to a hazelnut. The duodenum was the seat of carcinoma.

The preceding constitute a highly important class of intestinal growths because of the special features peculiar to them.

—Ein geheilter Fall von Darmpolyposis. Von Dr. Ernst Ritter v. Karajan, gewesener Operationszolgling der Klinik. Wiener Klinische Woch., 1899.

Note.—First. Polypi are rare in the small intestine, when of such volume as to constitute a mechanical impediment to the alimentary current.

Secondly. Their diagnosis is next to impossible without abdominal sections and exploring the intestine. As they undergo augmentation in growth and number they enkindle serious pathologic changes spreading wide of the intestinal walls.

Thirdly. Operative relief or cure is next to impossible when the small intestine is the most accentuated location, because of their deep-rooted attachments, the torsion invagination and multiple adhesions they produce. And further, because in this class there are commonly secondary growths in other undiscovered situations. T. H. M.

TREATMENT OF CARBUNCLE.

For five years the author has treated carbuncle by injecting carbolic acid, eighty to ninety per cent, with good results, and no complications. In the early or papular stage an injection of from one to three drops will suffice, but in the suppurating stage the acid must be injected with a free hand, sometimes as much as thirty drops at a time, and repeated if necessary. In carbuncle of massive perforations or great depth, the acid must be sent into the base in numerous places. In the latter cases caution must be observed, especially when injecting over vascular areas. The surrounding skin should be protected against the corrosive effects of the escaping acid. At first, considerable pain follows the injection, but quickly ceases. The after-treatment consists of protection and mild stimulation. During separation of the slough, tonics and stimulants should be freely administered.

—Post. Grad.

Do not forget that it is a good practice, in severe cases of fractured ribs, and those in which the lung is wounded, to strap the chest and apply ice externally. But do not strap or bandage if there is much surgical emphysema.—Fenwick.

Do not be very solicitous in obtaining crepitus of a fractured rib. Treat it as such. In manipulating either side of the fractured rib to obtain evidence of undue mobility, do not handle portions of two different ribs. —Fenwick.

—Railway Surgeons.

THE SURGERY OF THE STOMACH.

Ewald, of Berlin, read before the recent International Medical Congress a paper on this subject, which his large experience renders of great interest. The prognosis of operation upon the stomach has definitely improved, although there is still a marked difference between the results as reported by surgeons and physicians. He has had under observation in the past two and a half years twenty-nine cases of gastro-enterotomy, seventeen cases of resection, and twenty-two cases of gastrotomy. In most of the cases the condition dealt with was carcinoma, but there were three cases of benign stricture of the pylorus. In all but the three cases the immediate operative result was perfect. The following were the final results: 26 gastro-enterotomies, with 16 deaths, or 62 per cent.; 13 resections, with 9 deaths, or 69.2 per cent.; and 22 gastrotomies, with 12 deaths, or 54 per cent. mortality. These results are more unfavorable than those reported by surgeons, especially those from Mikulicz's clinic. But the surgeon, says Ewald, often regards a survival of the operation as a cure.

The limitations of the indications

for operation, which are very variable, cause the statistics to vary; for example, the exclusion of manifestly unfavorable cases, which improves the statistics. The principal reason for failure lies in conditions which are beyond the surgeon's control. Cases often present insurmountable difficulties.

For the prognosis the following factors are important: (1) the position of the tumor on the stomach wall and the extent of surface involved; (2) the extent of metastatic involvement of other organs; (3) the extent of cachexia and consequently diminished powers of absorption and assimilation after the operation. Before opening the abdomen one can form no idea of the position and relations of the tumor. The so-called early diagnosis of carcinoma by analysis of the gastric secretion has not proved of value. The increase in the lactic acid appears, as a rule, later than the time the tumor first becomes palpable. Without the palpable tumor the diagnosis can only be extremely doubtful. We operate earlier at present than formerly, only because we make up our minds to operate, as a rule, sooner. The possibility of early operation depends entirely upon early recognition of the tumor. Gastrotomy is little more than a method of producing euthanasia. Cases of carcinoma of the esophagus should be supported as long as possible by feeding through esophageal tubes or per rectum, and gastrotomy attempted only when the body weight begins to diminish to the danger point.

In cases which apparently present favorable conditions for operation the prognosis is always doubtful, and interference should be advised only with a full understanding of this fact. The prospects of a cure are hardly twenty-five per cent., and of improvement not more than fifty per cent.

For every possible reason cases which seem favorable should be brought to operation at the earliest possible moment.

—Boston Med. and Surg. Journal.

FRACTURES.

Gourensth recommends massage immediately after treatment begins in all simple fractures. It calms the pain and diminishes the tonicity of the muscles and other tissues, besides it favors the adjustment of the fragments. Properly applied it does not favor osseous displacement, but rather retention in position.

Solidification is more rapid after massage than complete immobilization.

In juxto-apophyseal or intra-articular fractures massage oftener hastens return of fracture.

This treatment is most useful in the aged or those whose nutrition is below par. Where there is a great tendency to displacement it may be combined with immobilization.

Nearly all fractures of the extremities are amenable to this valuable therapeutic resource; though it is well, however, to consider carefully the indications in special cases.

—Vratch, No. 1898.

T. H. M.

GONORRHŒAL STRICTURE OF THE RECTUM.

Dr. W. Berndt reports eighteen cases of the above from Mikulicz' clinique in Breslau. Four of the patients were of the male sex. The stricture arises independently of ulceration, and is the result of chronic gonorrhœa, with inflammatory infiltration of the entire thickness of the wall of the rectum. The condition was preceded by an inflammation of Bartholin's gland in five cases. There was an additional history of syphilis in six cases. Mikuliez holds, however, that the majority of cicatricial strictures of the rectum are of gonorrhœal origin, whether one succeeds in finding the gonococcus or not. In five patients the infection of the rectum was favored by a very relaxed condition of the sphincter ani. The stricture is usually found from 1 to 4 in. from the anus, but the stenosis may extend as high as the sigmoid flexure.

—Centralbl. f. Chir.

THE INFLUENCE OF VARICOCELE ON THE SEXUAL POWER.

BY CAMPBELL WILLIAMS, F.R.C.S.

Matters relating to the sexual aspect of our being do not lend themselves palatably to medical discussion, and for the same reason are either omitted, or so briefly touched upon in text-books, that often one must glean by experience and clinical observation what one is unable to learn by other methods. The influence of varicocele on the sexual power falls within this category, and perchance for that cause it has received but brief mention. Undoubtedly in some subjects it produces a very distressing physical and mental state. Since the bearing of a varicocele to the train of symptoms for which they often seek relief, and which they attribute to other causes, is not always recognized, I venture to dilate upon the subject. It is generally admitted that varicocele usually involves the veins of left pampiniform plexus, and although the right ones may be similarly affected they are as a rule but slightly implicated. A large right-sided varicocele with practically normal left veins led me to discover that the patient was the subject of "transposed viscera," which accounted for the abnormality. A certain number of patients who suffer from a varicosed pampiniform plexus seek surgical advice on account of the local symptoms that arise from its presence, such as a sense of testicular weight, pain, neuralgia, or hyperæsthesia. Others invoke the surgeon's aid to rid them of a condition which proves a bar to their entrance into certain branches of the public service. Amongst the latter class there are many who were unaware of the existence of anything abnormal in their venous condition until they had been refused by the examining medical officer "for varicocele" in that it had not given rise to any scrotal symptoms to attract their attention to its presence.

—The Clinical Journal.

ECTOPIC TESTES.

M. Grocha has lately recorded 115 cases of imperfect descent of the testes which have been seen and treated by him. He operated 138 times on 115 cases. None succumbed. In three there was an insignificant suppuration in the wound. He adopts the procedure proposed by Villemin and like him rejects castration. He prefers not to operate on these cases until after the third year, not because of fear of urinary soiling of the wound but because by this age many undescended testes make their way down into the scrotum.

Of the 115 cases 79 have been seen at varying periods after operation from one to six years. In no single case in which hernia was present was there a relapse. Pain disappeared in all except one, wherein, later a castration had to be done. In 31 the results have been perfect. Good in 35. In 13 the testicle atrophied.

—La Tribune Medicale.

THERAPEUTICS

In charge of H. B. SHEFFIELD, M.D., New York.

COMPARATIVE VALUE OF MYDRIATICS.

According to Dr. Schneider homatropine hydrobromate, in 1 per cent. solution produces very marked mydriasis, but provokes paralysis of accommodation, which persists for about twenty-four hours. Cocaine hydrochlorate in 4 per cent. solutions is free from this defect, but, on the other hand, mydriasis is not marked; it softens the corneal epithelium. Ephedrine hydrochlorate in 10 per cent. solution causes no paralysis of accommodation; combined with 1 per cent. of homatropine it gives rise to a moderate mydriasis, which disappears entirely in four or five hours. Euphthalmine hydrochlorate in 5 per cent. solution produces considerable mydriasis with but slight derangement of accommodation.

H. B. S.

—Phar. Journal, 1490, p. 46.

CHOICE OF PURGATIVES.

In selecting purgatives for individual cases Dr. Steinbach gives the following advice:

1. Mineral waters of the sodium-chloride group are indicated where we wish to promote absorption of nutriment and peristalsis by one and the same remedy.

2. Salts of the sodium sulphate type, especially Epsom salts, are to be employed whenever we desire watery stools to flush out the colon.

3. Rhubarb, senna, aloes, cascara, etc., are to be used in cases where we wish to stimulate peristalsis in the colon with a view of producing plastic stools of a pultaceous consistence.

—Deutsch Med. Zest.

CONTINUED FEVER IN CHILDREN, EPIDEMIC IN NATURE.

Dr. H. B. Sheffield observed an epidemic of continued fever in twenty-eight children of the H. Sh. G. C. Orphan Asylum. They all appeared within four or five days. The source of infection could not be determined. The prodromic stage lasted but one to two days and consisted in moderate lassitude and anorexia, with slight headache. Six children experienced, also, mild sore throats and stiffness of the neck. The fever rose abruptly to 104-106° F., and continued almost uninterruptedly for two to three and a half weeks, ending finally either by lysis or crisis, dropping to two or three degrees below normal. No delirium, insomnia, or even headache was present. There was some mental dullness and more or less marked deafness. The articulation of words was greatly disturbed, either slow, dragging, "seaming" in character, resembling that of disseminated nodular sclerosis, or in some the speech simulated the "alalia" of progressive bulbar paralysis. There was no sensory derangement of the tongue. The tongue was moist, soft and smooth and covered with a grayish white fur. There was neither anorexia, vomiting, diarrhœa, nor constipation present. Between the sixth to the eighth day all patients passed two or three stools, grainy like canary seed and grass-green in color floating in a yellow fluid. Careful bacteriological and microscopical examination of the dejecta disclosed, among others, an organism, which, though appearing a trifle thinner than the coli commune, corresponded with it in all other particulars. One of the

children, a girl 11 years old, who had been subject to pulmonary tuberculosis previous to the disease, died on the 17th day of the fever. Thorough post-mortem examination of the abdominal contents excluded any lesion indicative of intestinal disease, thus offering a strong point against the probable assumption of the disease in question as typhoid. This was also proven by the the negative results obtained in the examination of the blood with Vidal's method. Ehrlich's Diaro-Reaction was also absent. Epitaxis was present in about half of the cases. After apparent recovery of six days, collapse followed in a girl 8 years old, the high fever being again exhibited for ten days.

None of the peculiarities enumerated was so characteristic of the disease as the rapid recovery for three days after the subsidence of the fever all the patients were out of bed walking and talking as though they had not been ill at all.

Quinine had no effect upon the fever, and no malarial organisms could be detected in the blood.

H. B. S.

—American Medico-Surg. Bulletin.

FORMALDEHYDE IN TUBERCULAR LARYNGITIS.

Dr. T. J. Gallaher concludes:

1. It is safe to allow the patient to use a mild formaldehyde solution of 1 to 500, two or three times a day.

2. The relief to the dysphagia is very marked, and in many cases formaldehyde is a good substitute for cocaine.

3. Its most brilliant results are to be seen in the vegetative and ulcerative types, although the infiltrative cases improve greatly under its use.

4. The stronger solutions, from 1 to 10 per cent., should be applied two or three times a week as deemed expedient.

H. B. S.

—Med. Stand., Vol. xxii, No. 4., 1899.

OREXINE IN VOMITING OF PREGNANCY.

Dr. F. Hermann treated nine cases of vomiting of pregnacy with orexine tennate with excellent results. The desired effect set in after the administration of only a few powders and remained permanent. The writer believes, therefore, that it should be tried in every case of hyperemesis gravidarum where the induction of abortion seems to be the last resort.

H. B. S.

—Therap. Monatschr. Vol. xii.

POTASSIUM PERMANGANATE FOR FISSURED NIPPLES.

Dr. Dombrowsky advises to paint the nipple three or four times daily with a solution of potassium permanganate 2-5 per cent. The excoriations disappear in about a week. The first application causes some smarting, which, however, rapidly disappears. In order that the nursling may not absorb any of the remedy the nipple should be washed with a little warm water before each feeding and covered with some permenable material.

H. B. S.

—Progres Med., Jan. 7, 1899.

THERAPEUTIC HINTS.

One or two drops of a 1 per cent. solution of atropine is an excellent remedy for earache.

—

Toy poisoning is quickly cured by bathing with a solution of sodium hyposulphate.

—

Urotropin acts well in cystitis in children.

—

Guaiacol one part to four parts of tincture of iodine is being highly praised as a local application in serous pleurisy.

H. B. S.

PEDIATRICS

In charge of LOUIS FISCHER, M. D.

HOW TO AVOID TUBERCULOSIS.

In the Medical Record of October 22d, Dr. H. Tucker Wise thus summarizes the principal points of prevention: 1. A generous dietary of nitrogenous food. 2. Free ventilation of dwelling and sleeping rooms, by open windows with wire gauze blind. 3. Adequate house heating in winter. 4. Boil all milk or cream previous to using. 5. Try and obtain eight hours' sleep every night; if not sound sleep, contract hours to seven and rest during the day. 6. If debilitated with weak digestion, take rest in the recumbent position a quarter of an hour before and after meals. 7. Wear the loosest clothing possible, especially around the waist and lower ribs, to afford absolute freedom in respiration. 8. Take systematic daily exercise in the open air on foot. 9. If means and station in life admit of a long holiday, from time to time, live during fine weather in a tent in the open air, or in a summer house for most of the day; and if unemployed, pursue a hobby to occupy the mind. L. F.

MENINGITIS AND HYDROCEPHALUS.

The progress of knowledge in respect of the causation of hydrocephalus in association with various forms of meningeal inflammation has been painfully slow. Since Hilton, in his famous lectures on "Rest and Pain," first formulated the view that the accumulation of fluid in the ventricles was due to blockage of the foramen of Magendie, the tendency has been to ascribe all forms of hydrocephalus to the same mechanical cause in spite of the fact that numerous instances have been adduced in which this foramen was not obliterated, and in some instances was even dilated. The first step in advance was to distinguish the form of hydrocephalus due to tuberculous meningitis, and further light has now been thrown on the subject by the very interesting debate at the last meeting of the Royal Medical and Chirurgical Society on the newly differentiated group of posterior basic meningites. The subject has been carefully studied by Doctor Barlow and Doctor Lees, and their conclusions are in great measure confirmed by the further group of cases brought forward by Doctor Walter Carr. There appears to be a well defined type of meningeal inflammation in which the lesions are practically confined to the posterior base. The principal symptom is marked retraction of the head and an extraordinary degree of opisthotonos, keeping the patient, often for weeks together, with the back of the head approximated to the buttocks. Hydrocephalus is of frequent occurrence in these cases, but the accumulation of fluid in the ventricles cannot in all the cases be ascribed to blockage of the foramen of Magendie, or to closure of the foramen of Monroe. Failing to find a satisfactory explanation of the hydrocephalus on the blockage theory, Doctor Carr fell back upon a hypothetical distention of the veins of Galen. The careful and painstaking researches of Doctors Lees and Barlow, however, go to show that a more plausible explanation is the occurrence of blockage elsewhere than in these foramina. They have succeeded in demonstrating, in fact, that the roof of the fourth ventricle may become agglutinated to the floor, and that the adhesions which are held to be so characteristic of posterior basic inflammation may obliterate the subar-

achnoid space which surrounds the spinal cord, at one or several points, thus preventing the normal escape of the cerebro-spinal fluid along the sheaths of the outgoing nerves into the interstices of the tissues.

These observations afford a ready explanation of the varying degrees of the cranial tension observed in these cases. The ætiololgy is still obscure, but here are strong grounds for believing the exciting agent to be one or several micro-organisms, and if this view be correct, it is evident that the predisposing causes may vary indefinitely, because any of the many conditions which favor the introduction or development of an infective organism may favor the meningeal infection. Injury is credited with having determined the disease in too many instances for its possible importance as an ætiological factor to be disregarded, and of even greater interest is the frequency with which the victims of this disease, which is almost confined to young infants, have previously suffered from catarrhal symptoms. Middle-ear disease has been discovered post-mortem in a very large proportion of the cases, though apparently not in larger proportion than in children dying of diseases not involving the brain. Given the imperfect development of the temporal bone in young children, and the shortness of the Eustachian tube, it is evident that peculiar facilities exist for infection of the tympanic cavity; and the lymphatic and venous connections of that cavity, with the interior of the cranium, are so numerous and so close that the spread of the infection must be extremely easy.

This close connection between the tympanum and the interior of the cranium is, however, an argument which admits of more than one conclusion, for if purulent infection can spread readily enough from the tympanum to the brain, infection in the opposite direction is also possible. The middle-ear inflammation may consequently be the consequence, instead of the cause, of the meningeal infection. The disease is an exceedingly fatal one, cases of recovery being recorded as quite the exception, consequently its treatment by operative measures possesses a particular importance. Naturally enough when one finds, post-mortem, that the foramina of the ventricles are blocked the idea occurs that the distention may be relieved by puncture or incision, and this idea has been carried into practice in a large number of instances, with at any rate temporary relief. We apprehend, however, that no cure of the disease is to be expected from mere relief in distention dependent on mechanical obstacles to the proper drainage of the cerebro-spinal axis. Apart from the instant danger of rapid diminution of tension in such a delicate organ as the brain, the fact remains that the real source of the trouble has been left untouched. Surgeons are unanimous in affirming that if any serious attempt is to be made to avert the otherwise inevitable fatal termination it must be made earlier in the history of the case by relieving the inflammatory mischief which soon culminates in disorganization of the cerebro-spinal system. Once hydrocephalus has supervened the mischief has been done, but if performed early enough the occlusion of the foramina and the formation of adhesions may be averted, and then, as the inflammation subsides, the parts resume their normal functions. In other words, we must treat the meningitis, and not the resulting hydrocephalus. It is suggested that this can be done by incision of the membranes tympani, and this trivial operation, itself unattended by any risk, is advocated by more than one authority as a routine measure. Mr. Ballance opened up a new vista of possibilities by the narration of a case of purulent infection following the opening of a cerebellar abscess, in which a cure was effected by the injection of pneumococci antitoxin. The bacteriology of the meningites and of the resulting hydrocephalus is still, to a large extent, terra incognita, and

bacteriologists on the lookout for work cannot do better than to devote their attention to this subject, which is certain to yield a rich harvest of useful information on a matter of the greatest practical importance. L. F.

—Medical Press and Circular.

THYROID TREATMENT OF THE INSANE.

Experiments were made on some forty cases, ranging from the acute forms of mania and melancholia to the long abandoned dement; but the bulk were those of dementia under fifty years of age and not too long standing. Very severe tests were also made in cases of acute mania and recent melancholia, by suddenly dropping all other medication. The results were: Unimproved, eight; improved, twelve, greatly improved, fourteen; cured, five; died, one.

In forty-eight hours after commencing the thyroid (ten grains three times daily) a dement aged about thirty-five (his voice had not been heard for five years except once when he cried from acute pain) was conversing freely and intelligently. In spite of persistent treatment for some months he gradually relapsed, though he will still reply to questions, but never voluntarily enters into conversation. A profound melancholiac of one year's standing, silent and morose to an extreme degree, under thyroid was picking husks for a mattress and became so hilarious and talkative as to appear hysterical; he has never relapsed and will probably recover.

Another melancholiac, who always improved under opium but relapsed as soon as the drug was withdrawn, on the substitution of thyroid recovered and was sent home within a month; has remained well.

Two dements of seven and fifteen years' standing, and between forty and fifty years of age respectively, were rendered so ill by thyroid (which induced vomiting, profuse perspiration, and great heart depression) that its administration had to be discontinued; there was no perceptible improvement in either case.

Two young men in their twenties suffering from acute mania, characterized by violent outbursts and exacerbations, one of six and the other of eighteen months' standing, in whom all other treatment failed, were both cured and returned to their homes.

A strong man suffering from acute mania of violent type, talked, swore, or sang incessantly, broke everything in his reach, and could not be controlled by any form of restraint, in twenty-four hours after taking the thyroid became quiet and docile and still remains so; he would have been discharged but for some delusion which seemed difficult to eradicate.

A case of chronic mania became so violently excited that the thyroid had to be discontinued; the result negative.

Seven years ago a young married woman aged thirty was seized with acute mania, passing into dementia within twelve months. Up to the beginning of thyroid treatment, two years since, she remained in this condition. Was as helpless as an infant, dirty in habits, etc. The thyroid treatment with her was magical; she was talking the next day; the second day dressed and undressed herself; third day asked for work to keep time from hanging heavily.

The effect of thyroid upon the mental condition of the insane is certainly most extraordinary. Though only twelve per cent. of cases have been actually discharged as cured, its effect upon others who may yet recover, or in ameliorating the condition of those who may never recover, must be taken into consideration. L. F.

—Charles G. Hill, before the Medical and Chirurgical Faculty of Maryland.

GUAIACOL AS A LOCAL ANÆSTHETIC.

Newcomb in a paper read before the American Laryngological Association, describes the use of this drug in

certain cases as a substitute for cocaine. He says that it has been used in 98 cases with gratifying success. It is prepared by adding 5 per cent. of guaiacol to a solution of sulphate of zinc in olive oil and alcohol. L. F.

—Laryngoscope, June.

THE TREATMENT OF HEMICRANIA.

The majority of the subjects of migraine seem to be of a gouty predisposition, and for these proper habits in eating and drinking must be inculcated, writes Henry M. Lyman (Clinical Review, December). Red meat should be used very moderately, with almost total abstinence from eggs, beef, mutton, veal, tea, coffee, wine and tobacco. The patient should be instructed to drink freely of pure water in which a lithia tablet may be dissolved to insure a larger consumption of the liquid than would otherwise occur. During the summer, in constipated cases, it is well to prescribe a morning dose of sodium phosphate (one or two drachms in a pint of hot water) or a similar dose of Carlsbad salts or a laxative, such as rhubarb, aloin, cascara, and podophyllin, may be given for a time in place of the more efficient mineral salts, which are apt to give rise to gastroenteric catarrh if employed indefinitely. An occasional dose of calomel or blue pill is also useful as a prophylactic.

L. F.

EYE SYMPTOMS OF MENINGITIS.

Dr. A. E. Davis in a paper read before the Pediatric Section of the American Medical Association directed attention to the eye symptoms of meningitis. Many of the eye symptoms of importance in meningitis are largely motor, which may be observed without the aid of the ophthalmoscope. Thirty-eight cases of meningitis were reported—thirteen simple leptomeningitis, twelve cerebro-spinal meningitis, thirteen tuberculous. In eight of the thirteen cases of leptomeningitis there were no eye symptoms. The patient with purulent meningitis, in which no eye symptoms were present, showed post-mortem the meninges covered with pus and extensive adhesions between pia and dura mater. In the cases of cerebro-spinal meningitis eye symptoms were absent in seven. Loss of iris reflex was present in one, dilated and fixed pupils in another, strabismus in a third, and in the fourth the pupils were dilated but reacted to light.

No eye symptoms were present in eight of those having tuberculous meningitis; pupils were dilated in one. There occurred extensive ulcerative keratitis and conjunctivitis in another, and in a third dilated pupils and lagophthalmia. No tuberculous condition of the eye was seen in any case. Whether symptoms are primary or secondary must be decided. The motor and visual disturbances should also be differentiated. Cerebro-spinal meningitis has as prominent symptoms paralysis of third, fourth, ophthalmic division of fifth, sixth and seventh nerves, with nystagmus and ptosis from fortical lesions; choked disc, optic neuritis, perineuritis, plastic and suppurative iritis, conjunctivitis, edema of the lids, hemianopsia as a cortex or tract lesion. In simple or leptomeningitis the eye symptoms are of more importance in determining the diagnosis than in the cerebro-spinal type. The most reliable is optic neuritis. Many cases occur as sequelæ to middle-ear suppuration of a chronic character. Metastasis is another frequent cause. The neuritis is always consecutive to a complicating meningitis. In tuberculous meningitis the eye symptoms are largely the same as in the simple form. L. F.

—Med. News, June 5, 1897.

CURRENT MEDICAL LITERATURE

MEMORIAL TO DR. JOSEPH O'DWYER.

A committee of over forty physicians, representing sixteen different medical societies of the city of New York and including representatives of both schools of medicine, has been formed for the purpose of doing honor to the memory of Dr. Joseph O'Dwyer.

The first meeting was held at the New York Academy of Medicine, November 22, 1898, under the chairmanship of Dr. J. D. Bryant, and was mainly devoted to organization. Dr. George F. Shrady was elected permanent Chairman, and Dr. Alfred Meyer permanent Secretary, and the following Committee on Scope and Plan was appointed: Dr. Dillon Brown, Chairman, and Drs. Robert Abbe, R. G. Freeman, L. Emmet Holt and Louis Fischer. At the second meeting held at the Academy of Medicine, March 13, 1899, the report of the Committee on Scope and Plan was adopted and now only awaits final action of a meeting of the full committee.

The memorial to Dr. O'Dwyer will probably take an educational form, for by the plan now outlined it is proposed to raise a fund of $30,000, the interest of which shall support two O'Dwyer Fellowships in Pædiatrics, open to competition by physicians who graduate in the United States and to be held by the successful competitors for a period of two years. During this period they must furnish satisfactory proof of their engagement in original research work to a committee of five, one of whom shall be appointed by the President of Harvard University, one by the Dean of the Johns Hopkins Medical School, one by the Provost of the University of Pennsylvania, one by the President of the University of Chicago, and one by the President of the New York Academy of Medicine.

Many details of this general plan are still to be arranged, which it shall be the agreeable duty of the Secretary to furnish to the medical press of the country so soon as they are finally decided. This preliminary notice has for its object merely to acquaint the profession with the fact that a movement of this nature is on foot, and that an effort will be made to give it the international character so fitting as a memorial to an investigator of international reputation.

SCIENCE AND LONGEVITY.

Science, we all know, is an exacting mistress, and those who follow her have few rewards beyond the joy of her service which is also the service of humanity. But if we may believe the eminent astronomer, Prof. Holden, science offers to her votaries certain concrete advantages as well, notably its undoubted tendency to prolong the lives of her followers. Prof. Holden gives several reasons for this, but he neglects one which we venture to think most potent, namely the habit of contemplation and detachment from petty mundane worries which scientific men share in common with men of letters and philosophers. The magnitude of their pursuits dwarfs the petty cares of daily life into insignificance, and here, as elsewhere, "it is worry that kills." Professor Holden says:—"It is not a little remarkable that men of science, astronomers among them, are particularly long-lived. The average longevity for men is about thirty-three years. Someone has had the patience to determine the average age of some seventeen astronomers and mathematicians, and it

turns out to be sixty-four years. That is, astronomers live nearly twice as long as men in general. According to Quetelet, artists have an average life of fifty-nine years; literary men of sixty-five years; scientific men, of seventy-four years. We are here dealing with selected classes of persons, all of whom are longer-lived than the average, and among them men of science are pre-eminent. The statistics from astronomers are really noteworthy; of one thousand astronomers no less than five hundred and ninety-six lived to seventy years; two hundred and sixty from seventy to seventy-nine; one hundred and twenty-six from eighty to eighty-nine; fifteen from ninety to ninety-nine; three over one hundred. According to life insurance tables, out of one thousand persons who have reached the age of eighteen years, only fifty-six reach the age of seventy; but more than ten times that number of astronomers survive. It is not difficult to assign good reasons why men of science should, in general, live far longer than the average man, or longer than artists, for example. In general they are in possession of incomes which, though they may be small, are tolerably certain. Their lives are usually orderly and calm. Scientific controversy may make the blood run quicker sometimes; perhaps they are needed to counteract a tendency to too much contemplation. But I think no one can fail to be surprised as the foregoing statistics. If one desires to live long upon this earth he is likely to gain his end by following science as a profession."

—Humanitarian.

PSYCHOLOGICAL WEIGHT CURVE IN PHTHISIS.

Wolff-Immermann draws attention to the importance of recognizing slight alterations of the body weight in cases of phthisis. He gives the results of some of his observations in the hospital at Reiboldsgrün. At first the patient's clothes are weighed independently, and the exact weight is marked on a board beside his bed. On all future occasions the patient must wear the same clothes, so that the amount may be subtracted from the general body weight. It is also important to weigh the patients always at the same time of the day, and to note how much food is being consumed. Cases occur in which a definite increase or diminution in weight takes place, and where the patient's appetite and general condition remain the same. Immermann has found that these fluctuations in weight are, in the majority of cases, to be attributed to psychical causes. Anything producing annoyance or excitement is sufficient to cause a definite lowering of the body weight for a day or two, without interfering with the satisfactory progress of the case. Curve charts are given which demonstrate these points. The increase of weight which accompanies a change of treatment is also very noticeable. At the commencement of the milk cure there is a steady rise in weight, which however does not continue after the first two or three weeks. A similar rise in weight is seen to commence with the administration of iron. The author suggests that the element of hope accorded to the patient by an alteration of treatment is sufficient to explain the rather rapid rise of body weight which takes place at the commencement of the new treatment. Immermann considers that the weight curve in phthisis shows the progress of convalescence most surely, and in this respect resembles the temperature curve in acute infectious diseases.

Munch. Med. Woch., June 21st, 1898.

TYPHOID FEVER AND INSANITY.

Paris records the case of a woman, aged 44 years, who for several years had been insane with ideas of persecution and of grandeur. An attack of typhoid fever occurred, and ran an uncomplicated course, and as it subsided the insane ideas became less prominent and less fixed. A relapse of typhoid followed, with very severe

symptoms, and on recovery the patient seemed perfectly sane. The case had always been regarded as incurable, and the disappearance of mental symptoms was thought at first to be only temporary; the patient was accordingly kept in the asylum some months longer; but now, after three years, there has been no return of insanity.—Hyvert (*ibid.*) records three cases of insanity in which typhoid fever occurred. In two of these an improvement in the mental condition followed. One, a woman, aged 20, with acute mania of two months' duration, completely recovered from her mental symptoms as the typhoid subsided; the other, also a woman aged 20, weak-minded, with hallucinations and insane ideas, had a severe attack of enteric with rigors and broncho-pneumonia; when these passed off the mental condition was found to be much improved, and the patient left the asylum practically cured.

Archives de Neurol., Aug., 1898.

GASTRIC HYPERÆSTHESIA.

A. Pick understands under this term an increased sensitiveness of the gastric mucous membrane to chemical, mechanical, and thermal stimuli, or to any one of them. Thus a patient with good appetite has pain when certain articles of food or drink are taken, and this is not relieved until such food or drink has disappeared from the stomach. The more empty the stomach the more certainly is pain produced by these articles. The stomach is most often hypersensitive to sugar, fat, and carbohydrates. There is in these cases no pain when the stomach is empty. Of thermal stimuli the stomach is more often sensitive to cold. The abnormal sensations may vary, amounting sometimes to severe pain, and even vomiting may occur. It is characteristic that fluids are as badly borne as solids or even worse. As to chemical stimuli, sometimes acids cannot be taken, as they produce so-called heartburn or even cramp-like pain in the stomach region. Heartburn occurring a couple of hours after food is usually due to hyperchlorhydria. Pick is convinced of the reality of this acid hyperæsthesia. Sometimes along with it there are typical signs of hypersecretion. Past gastric affections, over-eating, psychical influences, mental overwork, hysteria, neurasthenia, influenza are among the causes of gastric hyperæsthesia. Pain, eructation, heartburn, and vomiting are the chief symptoms. The pain is usually diffuse and disappears when vomiting supervenes; it may be lessened by faradism. The vomiting is characteristic in so much that fluids are more often vomited than solids. Sometimes vertigo and faintness are complained of. The diagnosis is based upon the healthy state of the gastric juice and the occurrence of periods free from symptoms. The diagnosis from gastric ulcer may be difficult. The treatment must be directed to the neurosis on which the disease depends. The feeding is important. The faradic current is useful. The treatment is largely suggestive. Medicinal agents occupy a secondary place; cocaine and menthol are the most efficient. The use of alkalies is only symptomatic treatment, and of these magnesia usta is the best for allaying the heartburn.

Wein. Med. Woch., Aug. 20th.

PUBLISHER'S MISCELLANY.

THE NEW WEEKLY INDIAN MEDICAL RECORD.

The Indian Medical Record, formerely a semi-weekly, comes out in 1899 a weekly. The new weekly stands in the very front rank as a worthy claimant of medical support and patronage. It is edited with exceptional ability, containing all the latest in the best medical literature.

Its editor wields a trenchant pen and some of its ringing editorials remind one of the fearless thunder of Tom Wakeley, who founded the Lancet.

We bespeak for our neighbor of the Orient a prosperous future, and trust it may receive the generous support of the profession.

RECTAL ALIMENTATION.

Dr. L. H. Watson, of Chicago, Ill., in a most interesting article on this subject in the New England Medical Monthly, of February, 1899, states that while rectal feeding is a makeshift, it is, according to our present light, at least a valuable one, life being prolonged in many cases. With regard to the different nutritive substances adapted for this purpose he especially calls attention to somatose which he considers very useful as an enema on account of its richness in albumen, four times as much as meat. He states that an enema of somatose in salt water relieves the feeling of hunger and faintness at the stomach. Ferro-Somatose, which is practically a proteid iron preparation, can also be employed in cases of anemia and chlorosis when ulcer is suspected. Although the first thought of the patient and friends, when told that it is impossible to feed by the stomach, is that death is inevitable, he regains his peace of mind when assured that he can be fed with nutritive enemata, and this affords the physician time for reflection and consultation.

NORTHWESTERN UNIVERSITY MEDICAL SCHOOL.

Dr. Marie J. Mergler has been elected Dean of the Northwestern University Woman's Medical School, in place of Dr. I. N. Danfroth, resigned. Dr. Danforth has been elected Dean Emeritus.

The yearly course at this school has been changed from one of two semesters to one of four semesters of twelve weeks each, commencing the first of July, October, January and April. Three semesters will be required; the other semester will be optional. The number of regular students will be limited to one hundred, twenty-five in each class. They will be admitted to competitive examination for place in class, only after having complied with the requirements of the State Board of Health.

Yours truly,

John Ridlon.

LEUCORRHŒA AND ITS TREATMENT.

BY ROBERT C. KENNER, A.M., M.D., LOUISVILLE, KY.

There is no affection peculiar to females which carries in its train more debility or inconvenience than leucorrhœa, and it can be also stated with equal truthfulness, that it is one of the most common diseases met by gynæcologists and the general practitioner.

Keating's definition of leucorrhœa is that it is a discharge of excessive secretion, non-hemorrhagic in character, coming from any portion of the mucous surface of the female organs of generation. This definition, very general in its nature, is as satisfactory as we could expect to find in a few

words. A description of the different varieties of leuchorrhœa will only afford us a proper view of the nature of the affection.

Leucorrhœa, while aggravated by, and dependent for continual existence upon systemic dyscrasias of different character, is in the greater number of instances purely local in its essential nature. There are cases which seems to be dependent upon causes affecting the general health, and while it is not denied that the low standard of health of the patient has much to do with the development and continuance of leucorrhœa, yet we are firmly convinced that some influence acting as an irritant to the mucous membrane brought about the initial lesion.

The following forms of leucorrhœa are those most commonly recognized by the best observers.

Leucorrhœ of the valvæ. This form is seen to affect the vulvæ per se, and does not extend to the mucous surface of the vagina. It is attended with viscid secretion which collects upon the labia majora, which glues the lips together at the margin.

This form is seen most generally in young children and has for its cause intestinal and seat worms, irritation by clothing, filthiness, masturbation, gonorrhœa and other causes.

This form, quite common in young children is often very important from a legal standpoint. Its presence often gives rise to the belief that children have been assaulted.

Vaginal leucorrhœa is not infrequently seen in single as well as married women. The discharge is of an opaque character, often resembling curdled milk. It is very acid and contains denuded epithelial cells. This form varies in severity from that of a mild inflammation that is but trivial in its character to one where the surface of the vagina is denuded of the epithelium. Often the discharge is entirely purulent. This form is also associated in some instances with cervical leucorrhœa.

Cervical Leucorrhœa. By general consent of authors the most prevalent form of leucorrhœa is the cervical. It is the affection most commonly encountered by the general practitioner. The discharge in these cases is a glairy, tenacious mucous, which often is strikingly like the white of an egg. It is very adherent and is generally very alkaline in reaction. Under the microscope it will be found to contain a number of epithelial cells. In many cases the cervix on being touched with an instrument readily bleeds. This form is due to injuries during labor, or those sustained while abortion is being performed. Excessive coition, and masturbation also are causative agencies. Coincident with pregnancy this form of leucorrhœa very often develops.

Intra Uterine Lucerrhœa. This form of lucorrhœa is generally met in young women who have narrowness of the orifices of the canal, and those who have suffered with endomnetritis. Women who have passed the menopause also are occasionlly met with who have this form of leucorrhœa. The discharge is very glairy, but very often it is purulent and even contains blood.

This form is rarely met with, and it requires the most constant and painstaking care on the part of the physician who takes charge of the patient. Having giving in general outlines the various expressions of this affection let us now inquire into the most successful methods of treatment.

The treatment to be successful must necessarily comprehend two needs: First, the general systemic condition, and second, the local inflammation. Attention to both conditions and rational treatment will bring about results that will be of a satisfactory character.

Here let me say that while constitutional treatment is of great importance, we will fail to get satisfactory results unless due attention is paid to the local inflammation. In fact, we shall often find that well-directed local treatment will be all that is required

to bring about a cure. Many symptoms supposed to be due to constitutional dyscrasis will disappear when local treatment of a correct character is applied. This is what we might expect when we remember what a drain on the constitution is sustained by many cases of leuchorrhœa.

In the treatment of leucorrhœa it is very important to search out whatever constitutional trouble there may be present. If anæmia is present we will gain much headway by correcting this with proper treatment. The same can be said of any constitutional discase or condition. Scrofula, syphilis, chronic bronchitis, phythisis and other conditions which lower the vital stamina will have to be corrected before the patient can begin to regain her former health. But we must not forget that local treatment must commence with and go along with whatever constitutional measure we may see fit to institute.

These patients should be directed not to engage in fatiguing occupations, or where they have to do a great deal of lifting, or where they have to stand up a great deal.

The employment of injections have been depended upon for a long time, but the experience of the profession is them. Of the articles employed the sulphate of zinc, tannic acid, carbolic acid, and other drugs have been employed.

Many injections of solutions of these drugs have been employed and in some cases they have done good, but the experienc of the profession is now that the same and even greater good can be accomplished by other more certain means. Injections are not made correctly, and do not reach the surface affected often, and many times failure is due to this cause. Again very often they cause irritation and do harm by enhancing the diseased conditions present.

Besides giving the needed constitutional treatment, what local treatment is best? We answer that Unguentine applied to the inflamed surface directly has given the best results. I have treated a great many cases with this as the local treatment with great success. I apply Unguentine which has been diluted one-half with vaseline, on ordinary clean cotton (non-absorbent) and apply this directly to the diseased surface. This is done once or twice daily as the discharge may or may not be profuse. Its application is not attended with pain. It is soothing, however, and the results of the treatment has been in every way more rational and consequently more satisfactory than by other means.

Annie, aged 22 years, married and the mother of one child, has been suffering form leucorrhœa for a year. I could account for this only on the ground that her cervix had been inflamed by an attempt that she had made to produce an abortion on herself. This patient was anæmic and complained greatly of weakness. She had a very profuse discharge which often contained considerable pus. She was given treatment for anæmia and Unguentine diluted one-half its bulk with vaseline was applied to clean non-absorbent cotton and put in position so that the diseased surface should be covered with the remedy. For the first week this was applied twice daily, but after that time the discharge was less and she employed the remedy less often.

Improvement in this case was constant after the first week and the patient made a complete recovery being under treatment only about six weeks. She is now, after a year, well and has had no recurrence of her affection.

Corrine J., aged 3. The mother of this child kept a boarding house and feared that the little daughter had been mistreated by some one. She was found to suffer from seat worms. This patient's labii would be closed almost with the discharge that poured out from them. The seat worms were given a quietus in the proper treatment and Unguentine diluted with

half vaseline was applied over all tangible parts of the vulvæ. After this treatment had been employed one week the little patient had entirely recovered.

Mrs. G., aged 33, had been a sufferer for a long time with Leucorrhœa which was of the vaginal variety, and which was very profuse and purulent in character. This woman had some anæmia and her appetite was indifferent. Appropriate treatment remedied this condition and application of Unguentine, diluted every other day as the conditions seemed to warrant, brought about a complete recovery in five weeks. This patient has had no recurrence of the attack after eight months. Her strength is good and she is in good spirits and in every way the picture of vigorous health.

I will close this article with these briefly given clinical histories, the space at my disposal being too limited for further histories. We may add, however, that this treatment so largely employed in Louisville, is bringing such good results that it will gain further extension by the profession, who are generally quick to cast off old time and unsatisfactory methods for modern and scientific measures.

OTITIS.

BY DR. HUGH BLAKE WILLIAMS,

The more I see of chronic suppurative inflammation of the ear, the more convinced do I become that the element of chronicity is due to lack of thoroughness in treatment. The method of procedure mapped out below will not succeed in cases where necrosis has occurred, but in all others it will reduce the duration of treatment from months and weeks to days.

The patient is placed upon the side is filled with Marchand's Hydrozone, which is allowed to remain until it becomes heated by contact with the skin, when, by tilting the auricle, the fluid is poured gently into the external canal. The froth resulting from the effervescence is removed with absorbent cotton from time to time and more Hydrozone added. This is kept up until all bubbling ceases. The patient will hear the noise even after the effervescence ceases to be visible to the eye.

Closing the external canal by gentle pressure upon the tragus forces the fluid well into the middle ear, and in some instances will carry it through the Eustachian tube into the throat. When effervescence has ceased the canal should be dried with absorbent cotton twisted on a probe and a small amount of pulverized boracic acid insufflated.

The time necessary for the thorough cleansing of a suppurating ear will vary from a few minutes to above an hour, but if done with the proper care it does not have to be repeated in many cases. However, the patient should be seen daily and the Hydrozone used until the desired result is obtained.

Care is necessary in opening the bottle for the first time, as bits of glass may fly. Wrap a cloth about the cork and twist it out by pulling on each side successively.

In children and some adults the Hydrozone causes pain, which can be obviated by previously instilling a few drops of a warm solution of cocaine hydrochloride. In this note it has been the intention to treat suppuration of the ear rather as a symptom and from the standpoint of the general practitioner.